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ABSTRACT

Planning Programming Budgeting Systems involve the introduction of three major operational concepts. First, the development of an analytical capability to examine in depth both agency objectives and the various programs to meet these objectives. Second, the formation of a five-year planning and programming process combined with a sophisticated management information system. Third, the creation of an improved budgeting mechanism which can take broad program decisions, translate them into refined budgetary decisions, and present the results for action. In this way, broad goals are reduced to specific program operations and the most economical methods of carrying them out are identified. The following four major steps are needed to accomplish this task: (1) identify library goals, (2) relate broad goals to specific programs, (3) relate programs to resource requirements and (4) relate resource inputs to budget dollars. Sixteen budgeting forms are presented and they proceed in order from conventional-type budgets which are traditional accounting or fiduciary budgets to semi-conventional and program budgets. [Not available in hard copy due to marginal legibility of original document.] (MF)

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Projecting Program Cost Over an Adequate Time Horizon

by

Milton Spencer, Professor
Business Administration
Wayne State University

Paper presented at an Institute on Program Planning and Budgeting Systems for Libraries at Wayne State University, Detroit, Michigan, Department of Library Science, Spring 1968

LI 002260

Introduction

by
Genevieve Casey
Associate Professor, Library Science, Wayne State University

The following paper was presented at an institute on Program Planning and Budgeting Systems for Libraries, held at Wayne State University under the Higher Education Act, Title IIB, in the spring of 1968.

The intent of the institute was to introduce administrators and finance officers of large libraries, public, state, and academic to the principles and procedures of PPBS.

Each participant in the institute brought with him the most recent budget document from his own library, and with the help of the institute staff, attempted to convert it into a PPBS presentation.

Projecting Program Cost Over an Adequate Time Horizon

by
Milton Spencer, Professor
Business Administration
Wayne State University

PPBS, when applied to libraries or other public agencies, involves the introduction of three major operational concepts:

1. The development of an analytical capability to examine in depth both agency objectives and the various programs to meet these objectives.

2. The formation of a five-year planning and programming process combined with a sophisticated management information system.

3. The creation of an improved budgeting mechanism which can take broad program decisions, translate them into refined budgetary decisions, and present the results for action.

In this way, broad goals are reduced to specific program operations and the most economical methods of carrying them out are identified. The following four major steps are needed to accomplish this task:

1. Identify library goals
2. Relate broad goals to specific programs
3. Relate programs to resource requirements
4. Relate resource inputs to budget dollars.

The forms presented in the accompanying pages are self-explanatory. Although they are applicable to the budgeting of universities, they have much in common--at least in principle--with the budgeting of libraries.

The forms proceed in order from conventional-type budgets which are traditional accounting or fiduciary budgets to semi-conventional and program budgets. By experimenting with forms such as these, the library business manager will be making a major step in the establishment of a program budgeting system.

FORMAT 1

Conventional Budget Format

Budgetary Unit_____

Item	1964/1965 Appropriations	1965/1966 Increase or Decrease	1965/1966 Estimated Total Budget
I. Salary & Wages			
A. Academic			
B. Nonacademic			
II. Nonsalary Items			
A. Supplies & Expense			
B. Equipment			

FORMAT 2

Program Budget Format

Budetary Unit _____ (core department) _____

Item	64/65	65/66	66/67	67/68	68/69	Change over Program Period
FACULTY						
T/R Ratio [a]						
T/S Ratio [b]						
SCH-Int. [c]						
SCH-Ext. [d]						
SCH-Ug. [e]						
SCH-G. [f]						
COSTS-Oper.						
Faculty						
SCH-Ug.						
SCH-G.						
COSTS-Invest.						
Faculty						
Student						
SUPPORT						
Staff						
Supplies						
Equipment						
Space—Faculty						
Space—Support Staff						

[a] Teaching/Research ratio in faculty.
[b] Faculty/Student ratio in program element.
[c] Student Class Hours—students internal to this element.
[d] Student Class Hours—students external to this element.
[e] Student Class Hours—undergraduate.
[f] Student Class Hours—graduate.

FORMAT 3

Conventional Budget
College of Arts and Sciences
SUMMARY BUDGET ALLOCATION

	1963-64	1964-65	Increase or Decrease
Dean's Office			
Air Science			
American Studies			
Anatomy and Physiology			
Anthropology			
Art			
Astronomy			
Bacteriology			
Biochemistry			
Botany			
Botany-Botanical Gardens			
Botany-Herbarium			
Classics			
Comparative Literature			
Decorative Art			
Dramatic Art			
Economics			
English			
French			
Geography			
Etc.			
Total			

FORMAT 4
CONVENTIONAL BUDGET

College of Arts and Sciences
DEPARTMENTAL FUND ALLOCATIONS

	Current Funds			Distribution		
	Total	General	Restricted	Salaries & Wages	Other Expenditures	Less Transfers
Instruction & Departmental Research						
Dean's Office						
Air Science						
American Studies						
Anatomy & Physiology						
Anthropology						
Art						
Astronomy						
Bacteriology						
Biochemistry						
Botany						
Botany—Botanical Gardens						
Botany—Herbarium						
Classics						
Comparative Literature						
Decorative Art						
Economics						
English						
Etc.						
Total						
Organized Activities						
Geology & Geophysics—Advanced Field Course Commissary						
University Theater						
Total						
Organized Research						
Anatomy & Physiology						
Anthropology						
Anthropology—Archaeological Research						
Art						
Astronomy						
Astronomy—Radio Astronomy						
Bacteriology						
Biochemistry						
Botany						
Botany—Botanical Gardens						
Botany—Herbarium						
Cancer Research—Genetics Lab						
Classics						
Decorative Art						
Dramatic Art						
Economics						
Electron Microscope Lab						
English						
Etc.						
Total						
Extension & Public Service						
Anthropology—Peace Corps Films						
Economics—New Zealand Project						
Music-Concerts						
Political Science—Latin America Project						
Total						
TOTAL COLLEGE OF ARTS & SCIENCES						

FORMAT 5

Conventional Budget
College of Arts and Sciences
DEPARTMENT BUDGET DETAIL

	1963-1964		1964-1965	
	Number of Positions (FTE)[a]	Approp[b]	Number of Positions (FTE)[a]	Approp[b]
COLLEGE OF ARTS & SCIENCES				
Dean-College of Arts & Sciences				
Academic Salaries				
Nonacademic Salaries				
General Assistance				
Supplies & Expense				
Equipment & Facilities				
Special Items				
Summer Stipends				
Account Total				
Air Sciences				
Nonacademic Salaries				
Deduct—Typist Clerk				
General Assistance				
Supplies & Expense				
Equipment & Facilities				
Account Total				
American Studies				
Academic Salaries				
General Assistance				
Supplies & Expense				
Equipment & Facilities				
Account Total				
Anatomy & Physiology				
Academic Salaries				
Add—Teaching Asst.				
Nonacademic Salaries				
Add—Electronics Technician				
General Assistance				
Supplies & Expense				
Equipment & Facilities				
Recharges				
Account Total				
Anthropology				
Academic Salaries				
Add—Asst. Prof. 9 mos				
Nonacademic Salaries				
Add—Typist Clerk				
General Assistance				
Supplies & Expense				
Equipment & Facilities				
Special Items				
Lab & Teaching				
Account Total				
Etc.				

[a] Full-time equivalent.
[b] Appropriation.

FORMAT 6

Modified Conventional Budget
Expenditures by Function and Number of Positions

	Number of Positions		Expenditures			
	64-65 FTE*	65-66 FTE*	64-65 Est	65-66 Proposed	Increase or Decrease	%
EDUCATIONAL & GENERAL						
Workload						
Instruction & Deptl. Research						
Agriculture						
Business Administration						
Chemistry						
Criminology						
Education						
Engineering						
Environmental Design						
Forestry						
Law						
Letters & Science						
Librarianship						
Optometry						
Public Health						
Social Welfare						
Graduate Division						
Other						
Total Instruction & Deptl. Research						
Summer Sessions						
Organized Activities						
Organized Research (Agriculture & Forestry)						
Libraries						
Extension & Public Service						
Maintenance & Operation of Plant						
General Administration						
Student Services						
Staff Benefits						
Gen. Institutl. Services & Expense						
Provision for Allocation						
Provision for Contingencies						
Merits & Promotions						
Student Facilities—Debt Service						
Incidental Fee—Cost & Salary Inc.						
Endowment Income—Unallocated						
Other						
Total Workload						
Improvements & New Programs						
Instruction & Deptl. Research						
Organized Research						
Provisions for Allocation						
Total Improvements & New Programs						
TOTAL EDUCATIONAL & GENERAL						
Auxiliary Enterprises						
Student Aid						
TOTAL CAMPUS						

* Full-time equivalent

FORMAT 7

Modified Conventional Budget
Expenditures by Object and Number of Positions

	Number of Positions		Expenditures			
	64-65 FTE	65-66 FTE	64-65 Est	65-66 Proposed	Increase or Decrease	%
EDUCATIONAL & GENERAL						
Workload						
Salaries & Wages						
Academic Salaries						
Nonacademic Salaries						
General Assistance						
Supplies & Expense						
Equipment & Facilities						
Special Items						
Deduct: Recharges						
Total Workload						
Improvements & New Programs						
Instruction & Deptl. Research						
Organized Research						
Provisions for Allocation						
Total Improvements & New Programs						
TOTAL EDUCATIONAL & GENERAL						
Auxiliary Enterprises						
Student Aid						
TOTAL CAMPUS						

FORMAT 8

Program Budget Support Sheet

Budgetary Unit _____

(Can be used to develop narrative summaries of program-element particulars. For example:)

1. Reduction in Program Element. Specifically identify savings resulting from changes in program element by resource categories. Indicate inter-element or inter-program estimated impacts.

2. Maintenance of Present Program Element. Discuss each resource category where increases or decreases occur. Approximate measures of the impacts of the change in the composition of the resource-use pattern in terms of student contact hours, hours devoted to research, and any estimated inter-element impacts. *

3. Increase in Resource Requirements. Specifically identify resource requirement increase, the additional contribution to be made to teaching, research, and public service, and five-year projections of total costs including offices, classrooms, laboratories, library support, etc.

4. Interim Changes. During the fiscal year, interim changes should be justified on the basis of the effect resulting from the change on specific program elements.

* Some of these dimensions may have to be developed in either narrative form or rather grossly quantified to prevent too intricately detailed data requirements and to protect decentralized responsibility from overwhelming central control with its attendant dangers of rigidity where flexibility to meet uncertainties is required.

FORMAT 9

Program Budget Support Sheet

Budgetary Unit _____ (major program, program element) _____

Fiscal Year	1966	% Change	1967	% Change	1968	% Change	1969	% Change	1970	% Change	Program Increase (Decrease)
ENROLLMENT											
Number											
Weighted											
In Absentia											
TEACHING STAFF											
Faculty (FTE)											
Visiting Fac. (FTE)											
Fellows & Assistants (FTE)											
STUDENT-FACULTY											
S/FTE—Number											
S/FTE—Weighted											
S/FTE—In Absentia											
TEACHING-RESEARCH											
Teaching (FTE)											
Research (FTE)											
ORGANIZED RESEARCH											
Faculty (FTE)											
Fellows (FTE)											

FORMAT 10

Program Budget Support Sheet

DISTRIBUTION OF TEACHING AND RESEARCH

Budgetary Unit:	% of Budget to Instruction					% of Budget to Intra-Element Research					% of Budget to Organized Research				
	1966	1967	1968	1969	1970	1966	1967	1968	1969	1970	1966	1967	1968	1969	1970
(Major Program)															
(Program Element)															
(Program Element)															
(Program Element)															
(Major Program)															
(Program Element)															
(Program Element)															

FORMAT 11

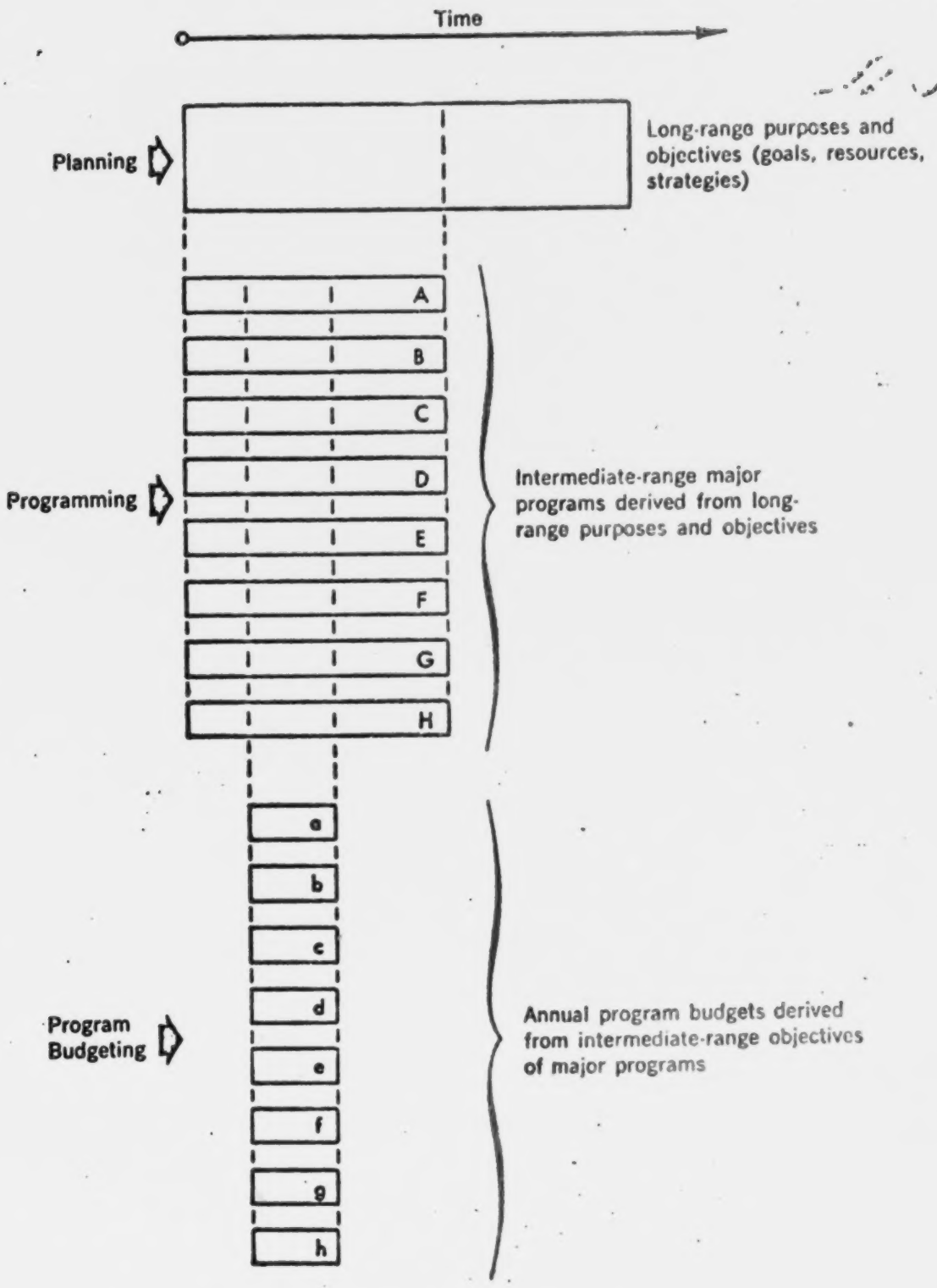

Fig. 2: The Derivation of Program Budgets

FORMAT A-1

Program Budget University Gross Requirements Matrix

Resource Category \ Program		College of Arts & Sciences					College of Law					School of Engineering					Total Gross Requirements (end of period)
		'66,	'67,	'68,	'69,	'70	'66,	'67,	'68,	'69,	'70	'66,	'67,	'68,	'69,	'70	
PROFS.	Full																
	Assoc.																
	Asst.																
INSTRUCTORS																	
TEACHING FELLOWS																	
RES. OR LAB. ASSTS.																	
SECRETARIES																	
OFFICE SPACE- No. & Sq. Ft.	Profs.																
	Instrs.																
	Assts.																
	Secs.																
SUPPLIES	Inven.																
	Purch.																
EQUIPMENT	Inven.																
	Purch.																
LIBRARY SUPPORT																	
STUDENT LOADS	Prof. Day																
	Prof. Eve.																
	Instr. Day																
	Instr. Eve.																
	Asst. Day																
	Asst. Eve.																
ROOM LOADS	Day																
	Eve.																
AVERAGE CLASS SIZE	Prof.																
	Other																
AGG. CLASS-ROOM SPACE	Teach.																
	Labs.																

FORMAT B-1

Program Budget Support Sheet

Budgetary Unit Libraries

Fiscal Year	1966	Net Change	1967	Net Change	1968	Net Change	1969	Net Change	1970	Net Change	Program Increase (Decrease)
Number of Volumes											
Per FTE Faculty											
Per Student—Ug.											
Per Student—G.											
Volumes Added											
Cost per Vol.											
Expense per FTE Faculty											
Expense per Student											
Circulation											
Per Volume											
____											
____											
Library Staff											
Ref.—Prof.											
Ref.—Support											
Gen.—Prof.											
Gen.—Support											
Acq.—Prof.											
Acq.—Support											
Books—Expen.											
Binding—Expen.											
Supplies & Expen.											
Space Requirements											
Sq. Ft.											
Cu. Ft.											
Etc.											

FORMAT B-2

Program Budget Support Sheet

Budgetary Unit Plant Operation and Maintenance

Fiscal Year	1966	65/66	1967	66/67	1968	67/68	1969	68/69	1970	69/70	Program Period Increase (Decrease)
Total Cost											
Total Sq. Ft.											
Cost per Sq. Ft.											
(Major Program) (Cost per Sq. Ft.):											
Superintendence											
Building Maint.											
Grounds Maint.											
Janitorial											
Police											
Utilities											
Repairs											
Alterations											
Misc.											
(Program Element) as above											

FORMAT B-3

Program Budget Support Sheet

Budgetary Unit Plant Operation and Maintenance

Fiscal Year	1966	1967	1968	1969	1970	Program Inventory End of Period
Equipment						
Type						
Purchased						
Inherited						
Replaced						
(trucks, police cars, etc.) (May be related to size of area, square footage, etc.)						
Consumables						
Type						
Purchased						
Consumed						
(brooms, window glass, floor wax, etc.) (May be related to square footage, etc.)						
Manpower						
Number						
Type						
Specialties						
Per Sq. Ft.						
Hours per Sq. Ft.						
Etc.						

FORMAT B-4

Program Budget Support Sheet

Budgetary Unit Administration

Fiscal Year	1966	1967	1968	1969	1970	Program Increase (Decrease)
TOTAL ADMIN.						
Professionals						
Staff						
Cost						
PRES. OFFICE						
CHANC. OFFICE						
ACAD. V. C.						
Analytical Studies Group						
FINAN. V. C.						
administrative cost per FTE faculty						
administrative cost per FTE student						
administrative cost as a percent of university budget, etc.						

(Support sheets—narrative form—should back up administrative program and program elements as in other major program areas.)